CLAIMS

1. A light emitting device comprising a semiconductor light emitting element and a phosphor which converts a part of a luminescence spectrum emitted from the semiconductor light emitting element;

wherein said luminescence spectrum of said semiconductor light emitting element is located between a near ultraviolet region and a short-wavelength visible region,

wherein said phosphor is made by adding a red luminescent activator to a base material of a blue luminescent phosphor.

2. The light emitting device according to claim 1;

wherein the emission wavelength can be adjusted by the added ratio of said red luminescent activator.

3. The light emitting device according to claims 1 or 2;

wherein said semiconductor light emitting element has a main peak wavelength more than 360nm in the ultraviolet region.

4. A light emitting device comprising a semiconductor light emitting element and a phosphor which converts a part of a luminescence spectrum emitted from the semiconductor light emitting element;

wherein said luminescence spectrum of said semiconductor

light emitting element is located between a near ultraviolet region and a short-wavelength visible region,

wherein said phosphor is an alkaline earth metal boric halide phosphor including at least one element represented by M selected from the group consisting of Mg, Ca, Ba, Sr and at least one element represented by M' selected from the group consisting of Mn, Fe, Cr, Sn.

5. The light emitting element according to claims 1 or 4;

wherein the light emitting layer of said semiconductor light emitting element is made of a nitride semiconductor including at least In and Ga.

6. The light emitting element according to claims 1 or 4;

wherein the light emitting layer of said semiconductor light emitting element is made of a nitride semiconductor including at least Ga and Al.

7. The light emitting element as in one of claims 4 to 6;

wherein said phosphor is an alkaline earth metal boric halide phosphor activated by at least Mn and Eu.

8. The light emitting element as in one of claims 4 to 7;

wherein said phosphor is represented by a general formula of $(M_{1-x-y}Eu_xM'_y)_2B_5O_9M''$,

where M is at least one selected from the group consisting of Mg, Ca, Ba, Sr, M' is at least one selected from the group consisting of Mn, Fe, Cr, Sn, $0.0001 \leqq x \leqq 0.5$, $0.0001 \leqq y \leqq 0.5$, and M'' is at least one halogen selected from the group consisting of F, Cl, Br, I.

9. A light emitting device comprising;

a semiconductor light emitting element of which luminescence spectrum is located between a near ultraviolet region and a short-wavelength visible region,

a first phosphor which converts a part of a luminescence spectrum emitted from the semiconductor light emitting element, said first phosphor being made by adding an activator for red light emission to a base material of a blue emitting phosphor,

a second phosphor which can convert a part of the light emitted from the first phosphor to a light having a wavelength in a range from blue region to red region,

wherein a mixed light of the light emitted from the first phosphor and the light emitted from the second phosphor is outputted, said mixed light having a wavelength within a range of white region.

10. The light emitting device as in one of claims from 1 to 9; further comprising a phosphor selected from the group consisting of

an alkaline earth halogen apatite phosphor activated by

Eu, or Eu and Mn [$(Sr, Ca, Ba, Mg, Zn)_5(PO_4)_3(F, Cl, Br, I)$:Eu, Mn],

an alkaline earth metal aluminate phosphor [$SrAl_2O_4$:Eu, $Sr_4Al_{14}O_{25}$:Eu(Mn), $CaAl_2O_4$:Eu(Mn), $BaMg_2Al_{16}O_{27}$:Eu, $BaMg_2Al_{16}O_{12}$:Eu,Mn, $BaMgAl_{10}O_{17}$:Eu(Mn)],

a phosphor of $CaO-Al_2O_3-SiO_2$ including nitride activated by Eu and/or Cr [oxynitride fluoroglass],

a phosphor of $M_xSi_yN_z$:Eu (where M is at least one selected from the group consisting of Mg, CaBa, Sr, Zn, $z=2/3x+4/3y$),

an yttrium aluminate phosphor activated by cerium,

a rare earth acid sulfide phosphor activated by Eu (La_2O_2S:Eu, Y_2O_2S:Eu and Gd_2O_2S:Eu),

an organic complex phosphor activated by Eu [$(Sr, Ca, Ba, Mg)_5(PO_4)_3Cl$:Eu, ZnS:Cu, Zn_2GeO_4:Mn, $(Sr, Ca, Ba, Mg)Ga_2S_4$:Eu and $(Sr, Ca, Ba, Mg)_2Si_5N$:Eu].